

# NEC breaks the speed barriers of microwave transmission with ultra high modulations

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NEC Corporation introduced today the latest breakthrough in capacity performance of microwave radio systems used in mobile backhaul and other types of networking applications. NEC will implement 2048 Quadrature Amplitude Modulation (2048QAM) within its iPASOLINK product family in the second half of 2012.

Being the first [microwave](#) radio systems provider to introduce 2048QAM, NEC can deliver up to 40% per-channel capacity increase to its customers, relative to the systems commonly in operation today which employ up to 256QAM. Furthermore, NEC's design also supports a full sequence of Adaptive Modulation in all steps from 2048QAM down to QPSK. This feature allows scalable addition of capacity without compromising the reach and availability of transmission links deployed in the network.

High modulation is the key component in enabling high capacity and eventually delivering 10Gbps microwave transmission in combination with multiplexing techniques such as XPIC, RTA and MIMO. Microwave capacities are not only comparative to those of optical access technologies, they can also be deployed on-demand, a critical attribute for the economical deployment of backhaul for LTE, digital broadcast, TETRA, and other types of communication networks. Innovation and flexibility are the reasons why network operators maintain their investment in microwave systems as they continue to match ever growing capacity needs.

Atsushi Noro, deputy general manager of NEC's Mobile Wireless Network Division, said: "In recent times we have seen a great deal of innovation in microwave technologies driven by the need to support next generation networks: high [capacity](#), new carrier frequencies, packet transport, QoS aware adaptive modulation, smaller and more power efficient equipment, and others. Many of these technologies were pioneered by NEC thanks to our extensive research and development capabilities proven by years of market leadership. 2048QAM is the latest development from NEC and we are confident we will deliver further innovations."

NEC will demonstrate the performance of its 2048QAM implementation at the Mobile World Congress 2012 in Barcelona, Spain, from 27th of February to 1st of March, stand 8A125.

Provided by NEC

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